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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/762,051

Applicant(s)

PARNANEN ET AL.

Examiner

Phillip H. Nguyen

Art Unit

2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to the amendment filed 4/24/2008.
2. Claims 1-23 remain pending and have been considered below.

Response to Arguments

3. Applicant's arguments filed 4/24/2008 have been fully considered but they are not deemed persuasive.

Applicant asserts on pages 2-3 of the amendment filed 5/14/2007 and 4/24/2008 regarding claims 8 that software per se is not automatically deemed to be non-statutory subject matter. The court in *State Street Bank & Trust v. Signature Financial Group, Inc.* 149 F. 3d 1368, 47 USPQ2d 1569 (Fed. Cir. 1998) held that

"(...) the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces 'a useful, concrete and tangible result' – a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon regulatory authorities and in subsequent trades." (id. at 1373)

Therefore, the transformation of data representative of some discrete entity into some useful, concrete, and tangible results amounts to patentable subject matter.

Applicant further states that the examiner has alluded, software is patentable if it produces a concrete, tangible, useful results.

Examiner respectfully disagrees with all the allegations as argued. Firstly, Examiner never before stated that software is patentable if it produces a concrete, tangible, and useful result. The reason claim 8 is rejected is because it is directed to software per se. The software elements are not stored on a hardware element to be able to have their functionalities to be realized.

Applicant asserts on pages 4-5 of the amendment filed 4/24/2008 regarding claims 1, 8, 17 that Hayton merely teach *adding a UI element to the UI 42, not a feature to application 26*.

Examiner respectfully disagrees with the allegation as argued. Hayton defines UI 42 (i.e. User Interface application): *"The UI 42 can be, for example, a Web page, an HTML document, a custom UI and the like"* (see col. 11:1-3). The UI elements 46' are also defined in FIGS. 4-5. One of ordinary skill in the art can recognize that the UI elements are also considered as the features or components or properties or contents, etc., of the UI 42 application because they provide additional features or functionalities to the UI 42 application such as "Albert the boss", "Bert the manager", "Cathy the underling", "Current Salary", "Employee", etc. Thus, adding a element to the application taught by Hayton is the same as adding a feature to the application of the instant application.

Applicant asserts on pages 5-6 of the amendment filed 4/24/2008 regarding claim 1 that Hayton fails to teach or suggest (1) *the feature matching a consumer*

interest is requested from an application interworking framework (2) identifying a provider and providing a feature if the provider is identified.

Examiner respectfully disagrees with all the allegations as argued. (1) One of ordinary skill in the art can recognize that API is a set of declarations of the functions or procedures that an operating system, library or service provides to support requests made by computer programs. Hayton teaches "*In another embodiment, the method includes monitoring a state of the property and detecting a change in the state of the property. In another embodiment, the process of detecting includes receiving a property change event from an API of a JAVABEAN compatible component*" (see at least col. 6:29-33). Hayton further teaches "*The computing device can initiate execution of the property connector API 22 when the user initiates execution of the application 26 or requests delivery of the page 42...*" (see at least col. 11:40-55). In other words, Hayton uses API for the user to make requests. (2) There are many different ways of identifying a provider, one example is when a connection is established between two parties (whether two applications or machines), they are identified themselves to each other before the connection established. In this case, Hayton teaches "*The computing device can initiate execution of the property connector API 22 when the user initiates execution of the application 26 or request delivery of the page 42...the computing device also **receives a startup argument including** the name of a file containing the UI page 42 details, and **details of the server node 60 to connect to and the application 26 to start***" (see at least col. 11:40-48). In other words, the client makes a

request to the server and receives details of the server and the server application for identifying the connected server.

Applicant asserts on page 5 of the amendment filed 4/24/2008 regarding claim 8 and 27 that Hayton fails to teach consumer application and provider application.

Examiner respectfully disagrees with the allegation as argued. Hayton teaches both consumer application (i.e. UI 42 of the client) and provider application (i.e. application 26 of the server) see at least FIG. 1.

Applicant asserts on pages 5-6 of the amendment filed 4/24/2008 regarding claim 21 that Hayton fails to teach (1) *store user interface element corresponding to an application interworking framework* (2) *communicating the user interface element to an application interworking framework*. Applicant further asserts that the server portion 22b transmits to the client portion 22a would be analogous to the property connector API 22 communicating with itself because the server portion 22b and client portion 22a are both part of the property connector API 22, and hence do nothing to support the examiner's assertion. Furthermore, applicant asserts that the changes communicating between the client and server portion are not UI elements.

Examiner respectfully disagrees with all the allegations as argued. (1) Hayton teaches *"In another embodiment, the property browser temporarily communicates with the server node 60 and initiates execution of the application 26. Upon execution, the property browser can obtain the instantaneous values of available application components 34, their properties 38 and the relationship (e.g., child nodes) between the application components 34. After this information is obtained, the execution of the*

*application 26 and communication between the client node 64 and the server node are terminated. **The property browser can save the obtained results in the property file**" (see at least col. 16:23-33). This quote alone indicates that the user interface elements communicated from the server to the client and saved in the file.*

However, let look at different embodiments of Hayton. (2) Hayton teaches "*In overview, the functions of the property connector API 22 can include "(1) collecting (i.e. obtaining, communicating or sending from the provider, etc.) and disseminating change events, (a) for the user-interface elements 46 associated with the properties 38, (b) between the user-interface elements 46 and the server node 60; (2) communicating change events of particular properties 54 between the client node 64 and the server node 60 and tracking those events about which the client node 64 needs to be informed; (3)..."*" (see at least col. 16:56-67 – col. 17:1-8). In other words, API is used for collecting, communicating, etc. user interface elements from the server to the client.

Furthermore, Hayton in other embodiments teaches "*the server node 22b can communicate changes to the client portion 22a*" (see col. 18:10-11). "*The event manager 74 communicates the updates due to the change event to each of the UI elements 46 mapped to the property path*" (see col. 18:65-67). In other words, the changes or updates to the UI elements are communicated to client to reflect the consumer interest.

Hayton further teaches "*The client portion 22a and the server portion 22b communicate with each other over the communication channel 90 (i.e. LAN or WAN links, wireless connection, ICA, HTTP, TCP/IP, Ethernet, etc.)*" (see at least col. 16:49-

51). In other words, the client portion 22a and the server portion 22b are located in two different machines (client and server). Therefore, property connector API 22 is not communicated with itself.

Applicant asserts on page 6-7 of the amendment filed 4/24/2008 regarding claims 2, 3, 5-7, 9-16, 18-20, 22, and 23 that Hayton fails to teach *using generic parameter in application interworking framework application program interface (API)*.

Examiner respectfully disagrees with the allegation as argued. Hayton teaches "API 22 maps each dynamic user-interface element 46 to a property 38 of an application component 34 using the associated property path" (see at least col. 11:50-52). In other words, the API 22 uses the associated property path (which is input parameter or can be considered as generic parameter) to maps each dynamic user interface element.

Applicant asserts on page 7 of the amendment filed 4/24/2008 regarding claim 11 that Hayton fails to teach wherein the new consumer application integrates into the device as if part of an original group of software applications for the device.

Examiner respectfully disagrees with the allegation as argued. Every application stored in a device is considered as integrated into the device because it is part of the device. In this case, UI 42 is part of the device and therefore it must be integrated into the device with other software applications of the device.

Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification. See MPEP 2111 [R-1] Interpretation of Claim-Broadest Reasonable Interpretation. During patent examination, the pending claims must be given their broadest reasonable interpretation consistent with the specification.

Applicant always has the opportunity to amend the claims during the prosecution and broad interpretation by the examiner reduces the possibility that the claims once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541, 550-51 (CCPA 1969).

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 8-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claim 8, recites a device but it appears reasonable to interpret this device by one of ordinary skill in the art as software per se. Applicant's specification provides no explicit and deliberate definition of the components such as **consumer application, provider application and application interworking framework** that make up the device other than they are software components, which are directed to functional descriptive material, per se, and are therefore non-statutory. Claims 9-16 directly or indirectly depend on claim 8 and therefore suffer the same deficiency.

Regarding claims 17-20 recite a system similar to the device in claim 8 and therefore suffers the same rejection.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3 and 5-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Hayton et al. (United States Patent No. US 7,194,743 B2).

As per claim 1, Hayton teaches:

- *requesting from an application interworking framework a feature matching a consumer interest of a consumer application* (see at least col. 11, lines 41-43 "the user initiates execution of the application 26 or request delivery of the page 42"; col. 17, lines 24-26 "...client node 64 requesting execution of the application 26 and/or in response to the client node 64 requesting the page 42...");
- *using the consumer interest and a feature capability to identify a provider* (see at least col. 11, lines 50-52 "API 22 maps each dynamic user-interface element 46 to a property 38 of an application component 34 using the associated property path");
- *providing the feature, if the provider is identified, to the consumer application* (see at least col. 2, lines 45-49 "user interface portion of the application can be delivered to the computer user either on the same

machine on which the application is executing or on another machine remote from the machine executing the application"; col. 18, lines 57-60 "The server portion 22b transmits to the client portion 22a any change events associated with those property paths in which the client portion 22a has indicated interest"); and

- *utilizing the feature at the consumer application* (see at least col. 18, lines 60-67 "When the event manager 74 receives a property change event...The event manager 74 communicates the updates due to the change event to each of the UI elements 46 mapped to the property path").

As per claims 2, 12 and 18, Hayton further teaches:

- *using generic parameters in application interworking framework application programming interfaces (APIs)* (see at least FIG. 1; see col. 11, lines 50-52 "API 22 maps each dynamic user-interface element 46 to a property 38 of an application component 34 using the associated property path").

As per claim 3, Hayton further teaches:

- *wherein the application interworking framework interfaces the consumer application with the feature provider* (see at least FIG. 1).

As per claim 5, Hayton further teaches:

- *adding a feature user interface element along with the feature (see at least FIG. 1).*

As per claims 6 and 16, Hayton further teaches:

- *wherein the feature user interface element comprises menu commands and a setting page or other user interface elements (see at least col. 11, lines 15-19 "The UI element 46 can be, for example, an input box for textual or numerical input and display of a value of a property...a horizontal slider for numerical...").*

As per claim 7, Hayton further teaches:

- *wherein the application interworking framework implements two application programming interfaces (APIs), including a consumer API and a set of provider APIs, wherein the provider APIs match the desired user interface elements (see at least FIG. 1; see col. 11, lines 25-30 "property connector API 22 includes a client portion 22a and a server portion 22b. The property connector API 22, and thus the client portion 22a and the server portion 22b, is a process that is independent of the application 26").*

As per claims 8 and 17, Hayton further teaches:

- *a consumer application that publishes a feature interest indicating what features the said consumer application desires to have (see at least FIG. 1; see at least col. 10, lines 66-67 "The client process 18 produces a user-interface ("UI") 42 that is displayed to a user");*
- *at least one provider application that has at least one feature available (see at least FIG. 1; see col. 10, line 6 "application 26") and*
- *an application interworking framework that provides an interface for the said consumer application and the said provider application such that the said feature interest is matched with one of the features available from the said provider application (see at least FIG. 1, API 22).*

As per claim 9, Hayton further teaches:

- *wherein the new consumer application is an application provided by a terminal manufacturer (see at least FIG. 1; see col. 10, line 1 "a server process 14").*

As per claim 10, Hayton further teaches:

- *wherein the new consumer application is an application provided by a third party to a user of the device (see at least col. 8, lines 51-59 "a third party could generate a user-interface for published application...A third party could design a new client type without the server's involvement").*

As per claim 11, Hayton further teaches:

- *wherein the new consumer application integrates into the device as if part of an original group of software applications for the device (see at least col. 10, lines 66-67 "The client process 18 produces a user-interface ("UI") 42 that is displayed to a user").*

As per claim 13, Hayton further teaches:

- *wherein the feature interest of the new consumer application comprises menu options not on the device before introduction of the new consumer application to the device (see at least col. 8, lines 22-23 "predefined element includes one or more of the following: a dropdown menu"; col. 21, lines 18-20 "A dropdown type is a nested dropdown menu, where each choice is a value from a range of indexed properties").*

As per claim 14, Hayton further teaches:

- *wherein the user interface elements corresponding to the matched features are placed in the interest placeholders (see at least col. 11, lines 50-52 "API 22 maps each dynamic user-interface element 46 to a property 38 of an application component 34 using the associated property path").*

As per claim 15, Hayton further teaches:

- *wherein the consumer application is a new consumer application (see at least col. 33, lines 36-38 "When the user clicks on a link, the client node 64 requests a new page 42' from the proxy process").*

As per claim 19, Hayton further teaches:

- *wherein the consumer application obtains user interface elements from other providers (see at least col. 17, lines 38-39 "user requesting the page 42 associated with the application 26").*

As per claim 20, Hayton further teaches:

- *wherein the client device is a mobile telephone (see at least col. 14, lines 56-58 "The client node 64 can be any computing device (e.g., a person computer, set top box, phone, handheld device, kiosk, etc)").*

As per claim 21, Hayton further teaches:

- *provide a consumer application interest resource for a consumer application specifying at least one user interface element (see at least col. 11, lines 41-43 "the user initiates execution of the application 26 or request delivery of the page 42"; col. 17, lines 24-26 "...client node 64*

requesting execution of the application 26 and/or in response to the client node 64 requesting the page 42...");

- *store user interface element corresponding to the consumer application interest resource in a file* (see at least col. 16, lines 31-32 "The property browser can save the obtained results in the property file");
- *communicate said user interface element to an application interworking framework* (see at least col. 2, lines 45-49 "user interface portion of the application can be delivered to the computer user either on the same machine on which the application is executing or on another machine remote from the machine executing the application"; col. 18, lines 57-60 "The server portion 22b transmits to the client portion 22a any change events associated with those property paths in which the client portion 22a has indicated interest"); and
- *add said user interface element to the consumer user interface* (see at least col. 18, lines 60-67 "When the event manager 74 receives a property change event...The event manager 74 communicates the updates due to the change event to each of the UI elements 46 mapped to the property path").

As per claim 22, Hayton further teaches:

- *computer code to generate a class of generic parameters* (see at least col. 15, lines 25-55).

As per claim 23, Hayton further teaches:

- *computer code to pass arguments within the application interworking framework* (see at least col. 11, lines 43-48 "when the computing device initiates execution of the property connector API 22, the computing device also receives a startup argument including the name of a file containing the UI page 42").

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayton et al. (US 7,194,743 B2), in view of Gudmundson (WO 00/58855).

As per claim 4, Hayton does not explicitly teach:

- *wherein the application interworking framework interfaces the consumer application with the feature provider using dynamic link library (DLL) function calls.*

However, Gudmundson teaches:

- *wherein the application interworking framework interfaces the consumer application with the feature provider using dynamic link library (DLL) function calls (see at least page 9, lines 5-6 "The feature repository contains all the components required to enable a particular capability or feature (e.g., dynamic link library (DLL) files...").*

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to recognize that the use of DLL is well known in the art and modify Hayton's approach to use a DLL to provide functions calls. One would have been motivated to modify because DLL provides one or more functions and the application calls the functions by creating dynamic link to the DLL.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip H. Nguyen whose telephone number is (571) 270-1070. The examiner can normally be reached on Monday - Thursday 10:00 AM - 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y. Zhen can be reached on (571) 272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2191

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PN

1/9/2007

/Wei Zhen/

Supervisory Patent Examiner, Art Unit 2191